

## Frequency reconfigurable aperture coupled antenna

### Abstract

The design of wideband log-periodic aperture coupled with frequency agility is studied for modern-day wireless communication application. The antenna is constructed on FR-4 substrate. Seven square patches are used in a log-periodic formation to achieved wide bandwidth of 37% or from 3.8 GHz to 5.5 GHz. The antennas reconfiguration performs when each aperture coupled antennas was switched ON and OFF using RF PIN diodes into four different configurations. Four different sub-band frequencies (3.85-3.95, 4.10-4.40, 4.50-4.75 and 5.15-5.35 GHz for each band) are configured from the wideband antenna.